

Comparisons of Job Characteristics

Focus Occupation: Civil Engineers (17-2051)

Associated Occupation: Architectural and Civil Drafters (17-3011)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 86

Focus Occupation: Civil Engineers (17-2051)

Associated Occupation: Architectural and Civil Drafters (17-3011)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Design	5.2	21.0	23.4	>	Current knowledge level is likely sufficient
Building and Construction	4.0	15.5	21.6	>>	Current knowledge level is likely more than sufficient
Engineering and Technology	5.7	15.2	24.5	>>	Current knowledge level is likely more than sufficient
Mathematics	9.2	13.3	20.0	>>	Current knowledge level is likely more than sufficient
Geography	3.9	7.9	9.7	>	Current knowledge level is likely sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 89

Focus Occupation: Civil Engineers (17-2051)

Associated Occupation: Architectural and Civil Drafters (17-3011)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Mathematics	6.2	11.0	15.7	>>	Skill level is likely more than sufficient
Operations Analysis	5.0	8.0	14.6	>>	Skill level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities

Similarity of Focus Occupation to Associated Occupation: 94

Focus Occupation: Civil Engineers (17-2051)
Associated Occupation: Architectural and Civil Drafters (17-3011)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Near Vision	11.1	13.3	14.1	0	Current ability level may be sufficient
Visualization	7.5	12.5	14.1	>	Current ability level is likely sufficient
Information Ordering	9.9	11.5	13.8	>	Current ability level is likely sufficient
Mathematical Reasoning	6.3	10.1	14.9	>>	Current ability level is likely more than sufficient
Flexibility of Closure	7.8	9.4	13.3	>>	Current ability level is likely more than sufficient
Number Facility	6.3	8.5	13.9	>>	Current ability level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 88

Focus Occupation: Civil Engineers (17-2051)
Associated Occupation: Architectural and Civil Drafters (17-3011)

Work Activities	Exclusivity of Activity
Analyze technical data, designs, or preliminary specifications	47
Collect scientific or technical data	30
Communicate technical information	4
Create mathematical or statistical diagrams or charts	43
Develop plans for programs or projects	31
Direct and coordinate activities of workers or staff	3
Draw maps or charts	69
Draw prototypes, plans, or maps to scale	57
Evaluate engineering data	60
Examine engineering documents for completeness or accuracy	62
Inspect project operations, or site to determine specification compliance	72
Interpret aerial photographs	69
Interpret maps for architecture, construction, or engineering project	77
Prepare technical reports or related documentation	22
Read blueprints	10
Read technical drawings	7
Understand construction specifications	53
Understand engineering data or reports	48
Use computer aided drafting or design software for design, drafting, modeling, or other engineering tasks	58
Use computers to enter, access or retrieve data	3
Use drafting or mechanical drawing techniques	50
Use field notes in technical drawings	78
Use land surveying techniques	80

Use spreadsheet software	18
Use word processing or desktop publishing software	17
Write business project or bid proposals	48

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 84

Focus Occupation: Civil Engineers (17-2051)
Associated Occupation: Architectural and Civil Drafters (17-3011)

Tools and Technologies	Exclusivity
Business function specific software	1
Computer printers	2
Computers	1
Content authoring and editing software	1
Data management and query software	1
Drafting supplies	9
Industry specific software	1
Information exchange software	1

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.